

CLAIMS:

1. Apparatus for operating and controlling a textile machine designed for processing a roving in order to form it into a yarn made from a continuous sequence of portions, each portion having predetermined count and/or twist characteristics,  
the apparatus comprising;  
at least one driving means connected for operation to an operating shaft, the operating shaft being capable of carrying out processes on the roving designed to produce the yarn;  
at least one operating device, connected for operation to the driving means, the operating means being capable of operating the driving means according to reference signals;  
at least one control device connected for operation to the operating device;  
wherein the control device comprises first means for generating a reference signal for keeping the count and/or twist characteristics constant along the yarn;  
together with second means for generating a reference signal for producing count and/or twist characteristics which are variable along the yarn; and  
additionally, means for selecting the operation of the driving means, connected for operation to the control device, and capable of enabling or disabling the first means and the second means.
2. Apparatus for operating and controlling a textile machine according to Claim 1, in which the first means and the second means for generating reference signals are included in a single means for generating reference signals.
3. Apparatus for operating and controlling a textile machine according to Claim 2, in which the single means for generating reference signals comprises a computer.
4. Apparatus for operating and controlling a textile machine according to Claim 3, in which the second means for generating reference signals comprise a card which is removable from the computer.
5. Apparatus for operating and controlling a textile machine according to Claim 3, in which the second means for generating reference signals comprise a card which can be electrically and/or electronically disconnected from the computer.

6. Apparatus for operating and controlling a textile machine according to Claim 1, in which the second means for generating reference signals comprise a computer.

7. Apparatus for operating and controlling a textile machine according to Claim 1, in which the first means for generating reference signals comprise a separate signal generation device.

8. Apparatus for operating and controlling a textile machine according to Claim 7, in which the separate device is a PLC.

9. Operating and control apparatus according to Claim 1, in which the selection means comprise means of loading corresponding software.

10. Operating and control apparatus according to Claim 9, in which the means of loading corresponding software comprise a hardware key.

11. Operating and control apparatus according to Claim 9, in which a first software is used for inputting command instructions for executing a process to obtain a yarn having a constant count and/or twist.

12. Operating and control apparatus according to Claim 9, in which a second software is used for inputting command instructions for executing a process to obtain a yarn having a count which is variable along the said yarn.

13. Operating and control apparatus according to Claim 9, in which a third software is used for inputting command instructions for executing a process to obtain a yarn having a twist which is variable along the yarn.

14. Operating and control apparatus according to Claim 9, in which a fourth software is used for inputting command instructions for executing a process to obtain a yarn having a count and twist which are variable along the yarn.

15. Operating and control apparatus according to Claim 1, in which the textile machine is a ring spinning frame comprising a drawing device which has a plurality of drawing rollers, and in which the driving means comprise a first driving means connected for operation to a second and a third drawing roller and a second driving means connected for operation to a first drawing roller of the drawing device.

16. Operating and control apparatus according to Claim 15, in which the first driving means is connected for operation to a second and a third drawing roller for the execution of a "slubbing" and/or "multicount" process.

17. Operating and control apparatus according to Claim 15, in which the second driving means is connected for operation to a first drawing roller for the execution of a "multitwist" process.

18. Operating and control apparatus according to Claim 15, in which the first driving means is connected for operation to a second and a third drawing roller and the second driving means is connected for operation to a first drawing roller for the execution of a "multicount-multitwist" process.

19. Method for processing a roving on a textile machine in order to form it into a yarn;

the yarn consisting of a continuous sequence of portions, each portion having a predetermined length and predetermined count and/or twist characteristics;

the method comprising the stages of:

selecting means for generating a reference signal for keeping the said count and/or twist characteristics constant along the yarn or means for generating a reference signal for producing count and/or twist characteristics which are variable along the yarn;

sending the reference signals to an operating device connected for operation to at least one driving means; and

operating the driving means in accordance with the reference signals for the execution of the process on the yarn.

20. Method for processing a roving on a textile machine in order to form it into a yarn;

the yarn consisting of a continuous sequence of portions, each portion having a predetermined length and predetermined count and/or twist characteristics;

the method comprising the stages of:

inserting a hardware key into the textile machine and/or connecting it to the machine;

selecting means for generating a reference signal for keeping the count and/or twist characteristics constant along the yarn or means for generating a reference signal for producing count and/or twist characteristics which are variable along the yarn, in accordance with the hardware key;

sending the reference signals to an operating device connected for operation to at least one driving means; and

operating the driving means in accordance with the reference signals for the execution of the process on the yarn.

21. Method for processing a roving on a textile machine in order to form it into a yarn;

the yarn consisting of a continuous sequence of portions, each portion having a predetermined length and predetermined count and/or twist characteristics;

the method comprising the stages of:

inserting a hardware key into the textile machine and/or connecting it to the machine;

selecting means for generating a reference signal for keeping the count and/or twist characteristics constant along the yarn or means for generating a reference signal for producing count and/or twist characteristics which are variable along the yarn, in accordance with the hardware key;

loading a control software in accordance with the hardware key;

inputting command instructions required by the control software;

generating reference signals in accordance with the command instructions;

sending the reference signals to an operating device connected for operation to at least one driving means; and

operating the driving means in accordance with the reference signals for the execution of the process on the yarn.